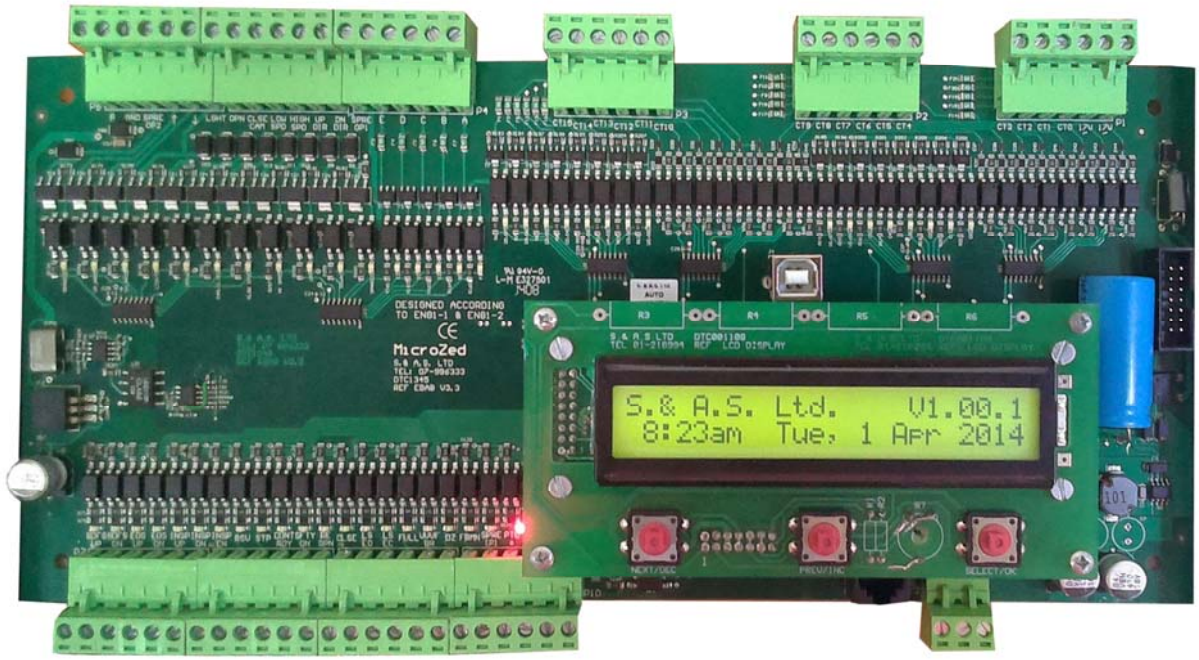
MicroZed

S. & A.S. LTD

ELEVATOR CONTROL MODULE
VERSION 3.3A
REF. MICROZED V3.3A



USER'S MANUAL

FOR S/W VERSION 1.00.2
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1 GENERAL DESCRIPTION

The MICROZED V3.3A elevator controller module contains all the necessary components to control the elevator and to simultaneously insure the protection of the elevator and user against faulty conditions. These controllers can operate in a group of up to 4 elevators. In addition, this module has a user-friendly interface consisting of one 24-characters by 2-lines LCD alphanumeric display and three push buttons to access the different pages, menus and parameters editing (the display is sold separately). All spare outputs are user configurable. The firmware could be upgraded on site.

Furthermore, the MICROZED V3.3A controller has a serial RS485 port enabling it to be connected to a hand held diagnostic tool (sold separately).

A new optional interface is available and it has a USB port, an ethernet port for internet connection and an RS232 port for a GSM modem connection. Special software, available from S. & A.S. ltd., displays the general status of the elevator and the most recent 15 faults on the computer screen.

1.1 MAIN FEATURES

Platform	ARM Microcontroller
Type	AC 1 speed – AC 2 speed – VVVF – Hydraulic[1]
Mode	Simplex or group[1]
Self diagnostic	Fault messages describing common faults related to periphery inputs
Status information	Status of the elevator and the door are permanently displayed
Fault count	Count of level II faults (refer to section 4.1) is permanently displayed
Shaft information	End of shaft in the up direction End of shaft in the down direction Slow down and final stop in the up direction Slow down and final stop in the down direction Door zone (recommended but not obligatory) Car position is saved following a power failure[2]
Indicator signal	Gray code, provided by the board (binary or other types can be supported optionally)
Number of stops	8, 16[3], 24[3] or 32[3] stops collective down – 6, 11[3], 16[3] or 22[3] stops collective selective[1]
Door type	Swinging, automatic or ½ automatic door[1]
Door controls[4]	Input for re-open, photocell and door jam switch + input to bypass closing delay[5]
Door parking status	Parking with door opened or door closed[1]
Floor Stop time	Can be defined by the user[1]
Main landing	Can be defined as any stop[1]
Car light	Automatic switch off after preset time
Automatic return	To main landing floor
Gong output	Three seconds pulse to signal the arrival of the elevator
Inspection mode[6]	For installation and maintenance purposes using slow speed/ Inspection speed
Reservation[7]	System responds to car calls only, outside calls are canceled
Minimum load[1]	Car calls are canceled if car stops twice on a car call and no passengers exit car
Full load[8]	Only car calls are served, outside calls are still registered
Emergency stop	Car is stopped, car calls canceled, outside calls retained, car restarts on a car call
Firemen operation[9]	Evacuation to ground floor, blocking all calls and allowing firemen operation
Terminals	All terminals are individually labeled according to function to facilitate identification
Group operation	RS485 port ready for group operation
Communication	Optional board (MCI-HUB) available for remote monitoring and control directly by PC or by internet. Connection via Ethernet or via RS232 GSM modem.
Software	Monitoring and controlling elevator installation, software runs under Windows™
Carcall cancellation	A registered carcall cancelled when user double-clicks it
Firmware update	User desktop interface to upgrade firmware on site Google store Application: SASPTool

[1] Selection by presetting a parameter in the menu, refer to section 5.
[2] When power returns, elevator resumes from where it was without the need of a homing trip unless Power-ON homing is enabled, refer to section 5.
[3] Requires optional extension boards.
[4] For automatic or ½ automatic door only.
[5] Activated by a push button in the car.
[6] Activated by an external key switch and two push buttons.
[7] Activated by a key switch in the car.
[8] Activated by an external contact.
[9] Activated by a key switch in the main landing floor.

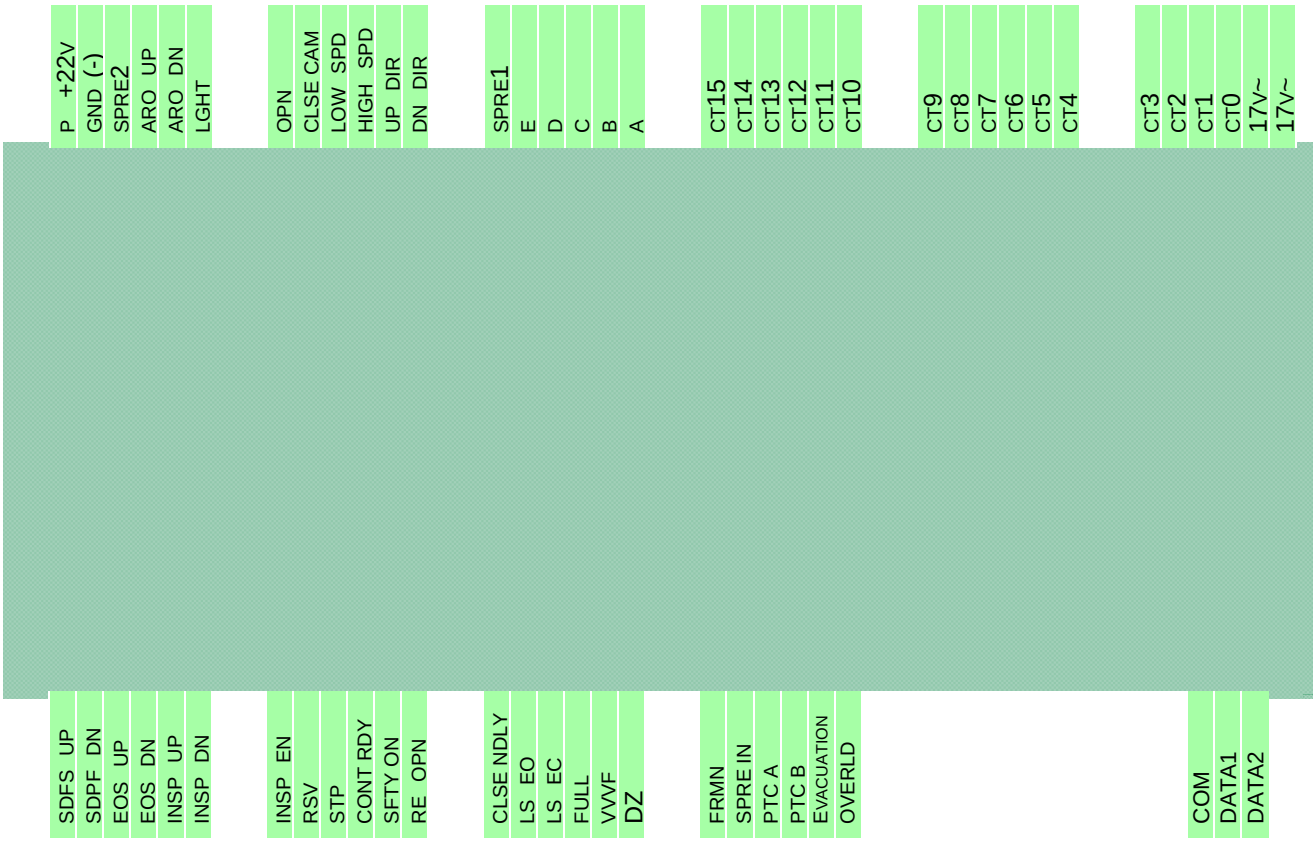
1.2 TECHNICAL DATA

Supply voltages	Board supply: 17vac +15% -25% - 120mA Periphery supply: 22vdc +15% -25%
Inputs	Each input has a led to indicate its status – all inputs are optically isolated Input active voltage level is 22vdc
Outputs	Each output has a led to indicate its status – all outputs are optically isolated Each output is capable of driving the negative side of a contactor or relay coil operating from a dc voltage as high as 90 volts with currents as high as 3 amperes[1]
Call terminals	Each call has a led to indicate its status Each call terminal consists of a combined input/output which is optically isolated Call active voltage level is zero volts (GND) Call terminals are capable of driving lamps up to 3 watts operating on 22vdc Each call terminal is protected by an additional output transistor
Indicator outputs	Each output has a led to indicate its status – all outputs are optically isolated Output active voltage level is 22vdc
Connection	Screw type, plug-in connectors

[1] Care should be taken to add a freewheeling diode in parallel with the coil of each contactor or relay driven from the board. Failure to do so will jeopardize the operation of the output transistor and will eventually damage it.

2 TERMINAL DESCRIPTION

2.1 TERMINAL LAYOUT



2.2 INPUT TERMINALS

SDFS_UP	Slow down and final stop in the up direction magnetic switch
SDFS_DN	Slow down and final stop in the down direction magnetic switch
EOS_UP	End of shaft in the up direction magnetic or limit switch
EOS_DN	End of shaft in the down direction magnetic or limit switch
INSP_UP	Inspection up
INSP_DN	Inspection down
INSP_EN	Inspection enable (when input is inactive)
RSV	Reservation – outside calls are canceled (when input is active)
STP	Emergency stop (when input is inactive)
CONT RDY	Should be active prior to initiating travel (ensures that all contactors are in their OFF state)
SFTY ON	Should be active when lift is moving (used to read the status of the safety circuit)
RE_OPN	Re-open for automatic door (when inactive) / door closed for swinging door (when active)
CLSE_NDLY	Bypasses reclosing delay in automatic door
LS_EO	Limit switch end of opening
LS_EC	Limit switch end of closing
FULL	Full load – only car calls are served with outside calls still being registered (when input is active)
VVVF	A VVVF signal that prompts the controller that the drive has engaged the mechanical brake
DZ	Door zone magnetic switch
FRMN	Firemen switch
SPRE IN	Spare input
PTC A	Input from the PTC
PTC B	Input from the PTC
EVACUATION	A Rescue signal that prompts the controller that it is in evacuation mode
OVERLD	Overload switch

2.3 OUTPUT TERMINALS

2.3.1 OUTPUT TERMINALS FOR AC 1 SPEED AND AC 2 SPEED

P +22V	Biasing voltage from periphery supply – positive side[1]
GND	Biasing voltage from periphery supply – negative side[1]
SPRE2	Gong or Cam contactor if ½ automatic door is selected as door type
ARO_UP	Up direction arrow
ARO_DN	Down direction arrow
LGHT	Car light relay
OPN	Open door relay or contactor[2]
CLSE_CAM	Cam contactor[3] / Close relay or contactor[2]
LOW_SPD	Low speed contactor[4]
HIGH_SPD	High speed contactor[4]
UP_DIR	Up direction contactor
DN_DIR	Down direction contactor
SPRE1	Spare output
E	Floor information E for Gray code indicator
D	Floor information D for Gray code indicator
C	Floor information C for Gray code indicator
B	Floor information B for Gray code indicator
A	Floor information A for Gray code indicator

2.3.2 OUTPUT TERMINALS FOR VVVF

P +22V	Biasing voltage from periphery supply – positive side[1]
GND	Biasing voltage from periphery supply – negative side[1]
SPRE2	Gong or Cam contactor if ½ automatic door is selected as door type
ARO_UP	Up direction arrow
ARO_DN	Down direction arrow
LGHT	Car light relay
OPN	Open door relay or contactor[2]
CLSE_CAM	Cam contactor[3] / Close relay or contactor[2]
LOW_SPD	Low speed relay[5]
HIGH_SPD	High speed relay[5]
UP_DIR	Forward relay
DN_DIR	Reverse relay
SPRE1	Spare output
E	Floor information E for Gray code indicator
D	Floor information D for Gray code indicator
C	Floor information C for Gray code indicator
B	Floor information B for Gray code indicator
A	Floor information A for Gray code indicator

[1] Although this is not an output, it is listed with the outputs for convenience.
[2] For automatic or ½ automatic door only.
[3] For swinging door.
[4] Do not connect for AC 1 speed elevators.
[5] Sets the speed reference for the VVVF drive. If only HIGH_SPD output is active, the high speed is selected. If both HIGH_SPD and LOW_SPD outputs are active, the slow speed is selected. If only LOW_SPD is active, inspection speed is selected.

2.3.3 OUTPUT TERMINALS FOR HYDRAULIC

P +22V	Biasing voltage from periphery supply – positive side[1]
GND	Biasing voltage from periphery supply – negative side[1]
SPRE2	Gong or Cam contactor if ½ automatic door is selected as door type
ARO_UP	Up direction arrow
ARO_DN	Down direction arrow
LGHT	Car light relay
OPN	Open door relay or contactor[2]
CLSE_CAM	Cam contactor[3] / Close relay or contactor[2]
LOW_SPD	Releveling relay
HIGH_SPD	High speed valve
UP_DIR	Pump delta contactor
DN_DIR	Down direction valve
SPRE1	Pump star contactor[4]
E	Floor information E for Gray code indicator
D	Floor information D for Gray code indicator
C	Floor information C for Gray code indicator
B	Floor information B for Gray code indicator
A	Floor information A for Gray code indicator

2.4 CALL TERMINALS

2.4.1 CALL TERMINALS LOCATED ON BOARD

The allocation of calls on call terminals depends on whether one or more extension boards are present. The table below shows how the calls are allocated:

Without Extension	Down Collective[5]	Full Collective
CT15	Down 7	Down 5
CT14	Down 6	Down 4
CT13	Down 5	Down 3
CT12	Down 4	Down 2
CT11	Down 3	Down 1
CT10	Down 2	Up 4
CT9	Down 1	Up 3
CT8	Down 0	Up 2
CT7	Car 7	Up 1
CT6	Car 6	Up 0
CT5	Car 5	Car 5
CT4	Car 4	Car 4
CT3	Car 3	Car 3
CT2	Car 2	Car 2
CT1	Car 1	Car 1
CT0	Car 0	Car 0
17V~	Board power supply – 17v~ a[6]	
17V~	Board power supply – 17v~ b[6]	

With 1 Extension	Down Collective[5]	Full Collective
CT15	Car 15	Up 4
CT14	Car 14	Up 3
CT13	Car 13	Up 2
CT12	Car 12	Up 1
CT11	Car 11	Up 0
CT10	Car 10	Car 10
CT9	Car 9	Car 9
CT8	Car 8	Car 8
CT7	Car 7	Car 7
CT6	Car 6	Car 6
CT5	Car 5	Car 5
CT4	Car 4	Car 4
CT3	Car 3	Car 3
CT2	Car 2	Car 2
CT1	Car 1	Car 1
CT0	Car 0	Car 0
17V~	Board power supply – 17v~ a[6]	
17V~	Board power supply – 17v~ b[6]	

[1] Although this is not an output, it is listed with the outputs for convenience.
[2] For automatic or ½ automatic door only.
[3] For swinging door.
[4] Do not connect for direct on line configuration.
[5] Down calls starting at ground floor level and below are internally converted to up calls. The position of the ground floor is determined by setting the number of basements; refer to section 5. For instance if there are no basements, then the ground floor is on the first level and consequently Down 0 call will be internally interpreted as an Up 0 call.
[6] Although this is not a call, it is listed with the calls for convenience.

With 2 or 3 Extensions	Down Collective[1] or Full Collective
CT15	Car 15
CT14	Car 14
CT13	Car 13
CT12	Car 12
CT11	Car 11
CT10	Car 10
CT9	Car 9
CT8	Car 8
CT7	Car 7
CT6	Car 6
CT5	Car 5
CT4	Car 4
CT3	Car 3
CT2	Car 2
CT1	Car 1
CT0	Car 0
17V~	Board power supply – 17v~ a[2]
17V~	Board power supply – 17v~ b[2]

2.4.2 CALL TERMINALS ON EXTENSION BOARDS

If more than one extension board is required, the boards should be cascaded. The table below shows how the calls are allocated on the extension board #1:

With 1 Extension	Down Collective[1]	Full Collective
P +22V	Biasing voltage from periphery supply – positive side[2]	
GND	Biasing voltage from periphery supply – negative side[2]	
EC0	Down 0	Up 5
EC1	Down 1	Up 6
EC2	Down 2	Up 7
EC3	Down 3	Up 8
EC4	Down 4	Up 9
EC5	Down 5	Down 1
EC6	Down 6	Down 2
EC7	Down 7	Down 3
EC8	Down 8	Down 4
EC9	Down 9	Down 5
EC10	Down 10	Down 6
EC11	Down 11	Down 7
EC12	Down 12	Down 8
EC13	Down 13	Down 9
EC14	Down 14	Down 10
EC15	Down 15	-

[1] Down calls starting at ground floor level and below are internally converted to up calls. The position of the ground floor is determined by setting the number of basements; refer to section 5. For instance if there are no basements, then the ground floor is on the first level and consequently Down 0 call will be internally interpreted as an Up 0 call.
[2] Although this is not a call, it is listed with the calls for convenience.

With 2 Extensions	Down Collective[1]	Full Collective
P +22V	Biasing voltage from periphery supply – positive side[2]	
GND	Biasing voltage from periphery supply – negative side[2]	
EC0	Down 0	Up 0
EC1	Down 1	Up 1
EC2	Down 2	Up 2
EC3	Down 3	Up 3
EC4	Down 4	Up 4
EC5	Down 5	Up 5
EC6	Down 6	Up 6
EC7	Down 7	Up 7
EC8	Down 8	Up 8
EC9	Down 9	Up 9
EC10	Down 10	Up 10
EC11	Down 11	Up 11
EC12	Down 12	Up 12
EC13	Down 13	Up 13
EC14	Down 14	Up 14
EC15	Down 15	-

With 3 Extensions	Down Collective[1]	Full Collective
P +22V	Biasing voltage from periphery supply – positive side[2]	
GND	Biasing voltage from periphery supply – negative side[2]	
EC0	Down 0	Up 0
EC1	Down 1	Up 1
EC2	Down 2	Up 2
EC3	Down 3	Up 3
EC4	Down 4	Up 4
EC5	Down 5	Up 5
EC6	Down 6	Up 6
EC7	Down 7	Up 7
EC8	Down 8	Up 8
EC9	Down 9	Up 9
EC10	Down 10	Up 10
EC11	Down 11	Up 11
EC12	Down 12	Up 12
EC13	Down 13	Up 13
EC14	Down 14	Up 14
EC15	Down 15	Up 15

[1] Down calls starting at ground floor level and below are internally converted to up calls. The position of the ground floor is determined by setting the number of basements; refer to section 5. For instance if there are no basements, then the ground floor is on the first level and consequently Down 0 call will be internally interpreted as an Up 0 call.
[2] Although this is not a call, it is listed with the calls for convenience.

The table below shows how the calls are allocated on the extension board #2:

With 2 Extensions	Down Collective[1]	Full Collective
P +22V	Biasing voltage from periphery supply – positive side[2]	
GND	Biasing voltage from periphery supply – negative side[2]	
EC0	Car 16	Down 1
EC1	Car 17	Down 2
EC2	Car 18	Down 3
EC3	Car 19	Down 4
EC4	Car 20	Down 5
EC5	Car 21	Down 6
EC6	Car 22	Down 7
EC7	Car 23	Down 8
EC8	Down 16	Down 9
EC9	Down 17	Down 10
EC10	Down 18	Down 11
EC11	Down 19	Down 12
EC12	Down 20	Down 13
EC13	Down 21	Down 14
EC14	Down 22	Down 15
EC15	Down 23	-

With 3 Extensions	Down Collective[1]	Full Collective
P +22V	Biasing voltage from periphery supply – positive side[2]	
GND	Biasing voltage from periphery supply – negative side[2]	
EC0	Car 16	Down 1
EC1	Car 17	Down 2
EC2	Car 18	Down 3
EC3	Car 19	Down 4
EC4	Car 20	Down 5
EC5	Car 21	Down 6
EC6	Car 22	Down 7
EC7	Car 23	Down 8
EC8	Car 24	Down 9
EC9	Car 25	Down 10
EC10	Car 26	Down 11
EC11	Car 27	Down 12
EC12	Car 28	Down 13
EC13	Car 29	Down 14
EC14	Car 30	Down 15
EC15	Car 31	Down 16

[1] Down calls starting at ground floor level and below are internally converted to up calls. The position of the ground floor is determined by setting the number of basements; refer to section 5. For instance if there are no basements, then the ground floor is on the first level and consequently Down 0 call will be internally interpreted as an Up 0 call.
[2] Although this is not a call, it is listed with the calls for convenience.

The table below shows how the calls are allocated on the extension board #3

With 3 Extensions	Down Collective	Full Collective
P +22V	Biasing voltage from periphery supply – positive side[1]	
GND	Biasing voltage from periphery supply – negative side[1]	
EC0	Down 16	Car 16
EC1	Down 17	Car 17
EC2	Down 18	Car 18
EC3	Down 19	Car 19
EC4	Down 20	Car 20
EC5	Down 21	Car 21
EC6	Down 22	Up 16
EC7	Down 23	Up 17
EC8	Down 24	Up 18
EC9	Down 25	Up 19
EC10	Down 26	Up 20
EC11	Down 27	Down 17
EC12	Down 28	Down 18
EC13	Down 29	Down 19
EC14	Down 30	Down 20
EC15	Down 31	Down 21

2.5 COMMUNICATION TERMINALS CONNECTION

COM, DATA1 and DATA2 should be connected in all controllers in a group mode.
CAT5 cable must be used where the shield is connected to COM and one twisted pair is used for DATA1 and DATA2

[1] Although this is not a call, it is listed with the calls for convenience.

3 CONTENTS OF PAGES DISPLAYED ON LCD

Page 1	Company name, Software version Time, date and day of the week[1]
Page 2	1st line: Elevator status → Normal, Inspection, Homing, Reservation, Full Load, Landing, Fault Speed → Hi, Lo[2] Direction → ↑, ↓[2] Floor → FL ## 2nd line: Door status: For swinging door → Opened, Closed, Locking, Locked For automatic & 1/2 automatic door → Opened, Closed, Opening, Closing, ½open, Unknown
Page 3[3]	Current fault description
Page 4[4]	Fault Log with the possibility of viewing the last 99 faults with the floor where each fault has occurred
Page 5	Homing trip request
Page 6	Summary of the elevator settings: Elevator mode and board address Collective mode Door type Drive type Count of extensions Minimum load feature (MD: Disabled, ME: Enabled) Main Landing feature (LD: Disabled, LE: Enabled) Parking Door status[5] (PDC: Closed, PDO: Opened)
Page 7	Boards detected On Bus (supported only when diagnostic tool is used)

4 VIEWING FAULTS AND FAULTS DESCRIPTION

4.1 HOW TO VIEW THE FAULTS

Faults detected by the board are divided into three levels:

1. Level I faults: faults that block the elevator when they occur. But the elevator can resume operation right after the fault disappears.
2. Level II faults: faults that can be tolerated for a few occurrences before the elevator is blocked by the board. The count of level II faults is shown on LCD Page 4. When the count of level II faults reaches the preset number[6], the board will block the elevator.
3. Level III faults: faults that the board considers to be fatal and will block any further operation of the elevator.

Pressing the **Select** push button while on LCD Page 4 will prompt the board to start displaying the last 99 faults saved in memory. The board begins by displaying the last fault followed by the floor number where the fault occurred. Press **Previous** or **Next** push buttons to display the previous or next fault.

4.2 HOW TO ERASE THE FAULTS

To erase the faults as well as the count of level II faults from memory, enter the menu, go to **Empty Fault Log** and press **Select** push button. You will be prompted to confirm your request. If **Yes** is pressed all faults are erased, if **No** is pressed, faults are not affected.

[1] When the RTC device is installed.
[2] When the elevator is moving.
[3] Appears only if there is a fault.
[4] Appears only if fault log is not empty.
[5] Relevant in automatic or ½ automatic door. Refer to section 5.
[6] Refer to section 5.

4.3 FAULT CODE DESCRIPTION

Fault Message	Fault Description	Level	Action taken
Sfty opnd in travl	Safety circuit and/or door opened during travel[8]	I	Waits for safety circuit to close
Sfty opnd in travl	Safety circuit opened during travel[9]	I	Waits for safety circuit to close, cancels calls if fault persists more than 5sec[1]
Lock opnd in travl	Door lock circuit opened during travel[8]	I	Waits for lock circuit to close, cancels calls if fault persists more than 5sec[1]
Door clsd, not sfty	Safety circuit failed to close after door closing[9]	I	Cancels calls and opens door[1]
Fail to lock cam	Failure in locking door after 3 attempts[8]	I	Cancels calls[1]
Fail to close door	Failure in closing door[9]	II	Cancels calls, opens door[1]
EOS_UP Fault	EOS-UP fault	III	Blocks elevator[2]
EOS_DN Fault	EOS-DN fault	III	Blocks elevator[2]
Shaft Info Flt	SDFS-UP or SDFS-DN or EOS-UP or EOS-DN or DZ[3] fault	II	Performs a homing trip
Shaft Info Flt	SDFS-UP or SDFS-DN or EOS-UP or EOS-DN or DZ[3] fault	II	Performs a homing trip
No EOS Info	EOS-UP and EOS-DN faults (both open)	III	Blocks elevator[4]
Emergency stop	Emergency stop	I	Waits for a car call to resume
Car is jammed	Motor has been powered for 25 sec, car did not move	III	Blocks elevator[2]
Door is obstructed	Door has been opened for more than Door Obstructed Del[5]	I	Waits for door to close[6]
Fail to open door[9]	Failure in opening door	II	Close door and resume
Operat. days exprd	Preset number of operating days expired	III	Blocks elevator[7]
Contactors jammed	All orders on contactors were removed, one contactor or more is still engaged	I	Waits all contactors to be released
Motor overheating	Motor temperature has exceeded its maximum allowable operating temperature	I	Elevator is stopped at the nearest floor. Waits for the motor to cool down
External err.(VVVF)	VVVF external error	I	Elevator is stopped at the nearest floor. Waits for external VVVF error to be removed
Uncontrolled Move	In VVVF, when Door zone is installed, The lift without Up/Down command in Normal operation goes out of zone	III	Blocks elevator[2]

The last 15 faults are permanently stored along with the time, date of occurrence and the floor where the error occurred. Faults can be accessed through the Select option on LCD Page 4.

[1] Waits for a call to resume operation.
[2] When the cause of the fault is diagnosed and fixed, empty the faults log or request a homing trip so that the elevator resumes operation.
[3] When DZ magnetic switch is installed. Refer to section 5.
[4] When the cause of the fault is diagnosed and fixed, the elevator will automatically resume operation.
[5] Relevant in duplex mode only - Refer to section 5.
[6] In case of automatic door, waits for obstacle to clear.
[7] To recover from this fault, access menu and clear the count of elapsed days. Refer to sections 5.
[8] For swinging or ½ automatic door.
[9] For automatic door.

5 MENU

5.1 PASSWORD

A password is required for accessing the menu. The password consists of 6 digits. Two passwords can access the menu. The first is provided by S. & A.S. Co. Ltd. and is referred to as client password. This password can only be changed by S. & A.S. Co. Ltd. The second password is referred to as the user password. The user password can be modified in the menu. The client password accesses all the items in the menu whereas the user password is denied access to all menu items related to time restriction.

5.2 ACCESSING THE MENU

To access the menu, press the right most push button on the LCD Display while on pages 1, 2, 3 or 6[1]. You will be prompted to enter a password. The first digit on the left starts blinking. Use the left most push button to decrement the digit and the middle push button to increment the digit. When the desired digit is reached, push the right most push button. The digit is accepted and replaced by "*****". The next digit starts blinking. Repeat the above procedure for all remaining five digits. If you have entered the right password, access to the menu will be granted, otherwise access will be denied. Note that the push buttons have dynamic functions and their functions are at all times shown on the lower line of the display.

[1] Refer to section 3

5.3 MENU DESCRIPTION

What you see on the display	Description and Comments	Normal Mode	Insp Mode	Visibility Condition	Range	Default Value
V1.00.2		V[1]	V			
Normal FLxx		V	V			
View Faults (Fatal=--)		If faults exist				
Homing trip?		V	V			
Simplex(1)Full Swinging		V	V			
Simulate calls		V/A[2]	NV[3]/NA[4]			
Inspection operation		NV/NA	V/A			
Boards detected On Bus		Always				
Enter Password		V/A	V/A			
Empty Fault Log	Empties the fault log	if faults exist				
Light Time	Car light turn off delay in sec	A	A	N/A[5]	5 to 99sec	10sec
Floor Stopping Time	Time between travel in sec	A	A	N/A	1.0 to 9.9sec	3.0sec
Parking Door	The parking status of the door	A	A	Auto/Half Auto door	Opened/Closed	Closed
Door Nudging/Obst	When enabled, the RE OPN input is bypassed to clear any obstacle blocking the door/ When disabled and the door is held open, it is considered to be obstructed after this delay	A	A	N/A	Ena/ Dis, 5 to 99sec	Dis, 90sec
Hydraulic Star Time	Star starting time of the hydraulic pump	A	A	Hydraulic elevator	0.0 to 9.9sec	1.0sec
VVVF Start Delay	The delay in sec between providing direction and speed reference outputs	A	A	VVVF drive	-9.9 to 9.9sec	0.0sec
VVVF/ Hyd Stop Delay	The delay in sec between removing direction and speed reference outputs	A	A	VVVF drive	-9.9 to 9.9sec	3.0sec
Gong Time	The gong time in seconds	A	A	Spare1 or Spare2 or Spare3 or Spare4 function=gong, CC+, CC-, HC+, HC-	0.0 to 7.5sec	3.0sec
Minimum Load	When this feature is enabled, car calls are canceled if car stops twice on a car call and no passengers exit car	A	A	N/A	Disabled/Enabled	Disabled
Main Landing	Sets the landing floor along with the delay before making a main landing trip given that the elevator has no calls to serve	A	A	N/A	None, 0… 31-0'10" to 30'59"	None
PTC Detection	When this feature is enabled, the motor PTC is continuously monitored	A	A	N/A	Disabled/Enabled	Disabled
Power On Homing[6]	When enabled, the elevator makes a homing trip upon every power-on When disabled following power on and if lift is not parked on a floor , the controller will take it to the nearest floor traveling in the same direction prior to power failure When set to NoDZ and the lift is on a floor, no action is taken. Otherwise, lift will do homing trip upon power-on	A	A	N/A	Disabled/Enabled/ NoDZ	Disabled

[1] V means visible
[2] A means accessible
[3] NV means not visible
[4] NA means not accessible
[5] N/A means not assigned
[6] If there are 2 close floors or the elevator slips more than ½ distance of the floor, "Power On Homing" must be set to enabled

What you see on the display	Description and Comments	Normal Mode	Insp Mode	Visibility Condition	Range	Default Value
Light Inverted	When this feature is enabled, the output logic of the car light is inverted	A	A	N/A	Disabled/Enabled	Disabled
Re-leveling	When preset to selective, the re-leveling is done only when the door is closed and the elevator has no calls to serve	A	A	Hydraulic elevator	Always/Selective	Selective/ Disabled
EOS During Insp	When this feature is enabled, the elevator is prevented from crossing the end of shaft limits in inspection mode	A	A	N/A	Disabled / Enabled	Disabled
Cam close delay	The delay in seconds between the closing of the swinging door and the Cam /Close signal	A	A	Swinging door	0.0 to 7.5sec	0.0 sec
Cam engage time	Maximum delay in seconds to Sfty on after engaging the cam	A[1]	A	Swinging door	5 to 99sec	5 sec
Contactor start del	The delay in seconds between providing the Cam/Close signal and the direction/Speed outputs	A	A	N/A[2]	0.0 to 7.5sec	0.5sec
2Side Door F.	Enable to activate 2nd door for cabin	A	A	Auto/Half Auto door	Disabled / Enabled	Enabled
Auto door mapping	Gives access to submenu “Floor # x Door Side”	A	A	2Side Door F. Enabled	N/A	N/A
Floor # x Door Side	Selects the door side for each floor	A	A	N/A	A / B / Both	Both
CC Cancelation	When enabled, a registered carcall can be canceled by double clicking it	A	A	N/A	Disabled / Enabled	Enabled
Time Restrict.	When this feature is enabled, the elevator is blocked when the number of days counted reaches the preset count of days	A	A	Client P/W	Disabled / Enabled	Disabled
Elapsed Cnt Of Days	Shows the number of days elapsed since the Time Restriction feature was enabled or since the last reset of the Elapsed Cnt Of Days	A	A	Client P/W	N/A	
Preset Count Of Days	Sets the maximum count of days of operation	A	A	Client P/W	1 to 999	1
Max. Count Of Err.	Sets the maximum count of Level II faults before blocking the elevator	A	A	N/A	None, 1…99	10
Amendment A3	When this feature is enabled and no moving orders are given, the elevator is blocked when door zone input status varies from On to Off	A	A	VVVF Drive & DZ installed	Disabled / Enabled	Disabled
Car jammed delay	The car is considered jammed after this delay.	A	A	N/A	Dis, 5 to 99sec	25sec
Auto Door Operation	The Auto door is considered jammed after this delay	A	A	Auto/Half Auto door	Dis, 5 to 99sec	20sec
Inspection speed	Sets the inspection speed	A	A	AC2 Speed	Lo/Hi	Lo
Ramp to stop w Insp	When this feature is enabled, the lift will ramp to stop when the inspection up or down button is released	A	A	VVVF drive	Dis/Ena	Dis
Basements	Sets the count of basements	NA[3]	A	N/A	0 to 9	0
Door Type	Selects the type of the elevator door. Select ½ automatic door if there is an electric cam to lock the door in addition to the automatic door drive.	NA	A	N/A	Swinging/ Automatic / ½ Automatic	Swinging
Permanent Close	When this feature is enabled, the door closing signal is permanently engaged during travel (required for specific types of door drives)	A	A	Automatic door	Disabled/Enabled	Disabled
Permanent Open	When this feature is enabled, the door opening signal is permanently engaged when the door is totally opened	A	A	Automatic door	Disabled/Enabled	Disabled
RE-OPN i/p	Sets the logic of the re-opn input	A	A	N/A	no/nc	nc

[1] A means accessible
[2] N/A means not assigned
[3] NA means not accessible
[4] Appears only if drive is VVVF and Encoder is installed

What you see on the display	Description and Comments	Normal Mode	Insp Mode	Visibility Condition	Range	Default Value
Reset time on re-opn	When this feature is set to Y and the door is counting Floor Stopping Time to start closing, Then if the photocell is cut, Restart counting Floor Stopping Time	A	A	Auto/Half Auto door	N/Y	N
Door Zone	When this feature is installed, the controller looks for the DZ magnetic switch signal upon every floor stop. The absence of this signal on floor level prompts the controller to register a Level II fault and to perform a homing trip	A	A	N/A	None/Installed	None
Pre-opening	When this feature is enabled, door starts opening when DZ is reached	A	A	DZ installed	Disabled / Enabled	Disabled
First Stop	Selects the gray code output for the first stop	A	A	N/A	0 / 1	0
Collective	Selects between collective selective, down collective and multiplexing modes	NA	A	N/A	Full / Down / APB /	Down
Carcall priority	Gives priority to car calls over hall calls	NA	A	Collective#APB	N/Y	N
Extension Boards	Sets the count of extension boards installed and thus the distribution of the car and land calls	NA	A	N/A[1]	None, 1, 2 or 3	None
Mode	Selects between simplex and group modes.	NA	A	N/A	Simplex/Group	Simplex
Drive	Selects the drive type	NA	A	N/A	AC 2speed / Hydraulic / VVVF	AC 2speed
Intermediat Speed	Selects when intermediate speed is used	NA	A	VVVF drive	None, 1FL, 2FL	None
Homing Speed	Select the homing speed	NA	A	VVVF drive	Insp/ Hi/ Int	Insp
Spare1	Sets the Spare1 output function	NA	A	Not Hydraulic	Fan/Gong/ BaseBlock/ DoorB Close/DoorB Open/ Int.Speed/Down Arrow/Up Arrow/1/2 Auto cam/Hyd.Star/Car Light/Open/Cam Close/Dn Direction/Up Direction/Low Speed/High speed/Slowing Down/Evac Mode/Insp Mode/Door Buzzer /Out Of Serv.	Fan
Spare2	Sets the Spare2 output function	NA	A	Not 1/2 Auto. door	Fan/Gong/ BaseBlock/ DoorB Close/DoorB Open/ Int.Speed/Down Arrow/Up Arrow/1/2 Auto cam/Hyd.Star/Car Light/Open/Cam Close/Dn Direction/Up Direction/Low Speed/High speed/Slowing Down/Evac Mode/Insp Mode/Door Buzzer /Out Of Serv.	Gong

[1] N/A means not assigned

What you see on the display	Description and Comments	Normal Mode	Insp Mode	Visibility Condition	Range	Default Value
Passenger Capacity	Sets the passenger capacity of the elevator	A	A	Group mode	1 to 99	5
Display Type	Selects the hall and car display type	A	A	N/A	Gray / Binary / Enhanced	Gray
Total Trips	Counter for the number of trips made by the elevator. The counter value can be edited and modified	A	A	N/A	0 to 999999	N/A
Language	Sets the language	A	A	N/A	English / French / Arabic /Swedish	English
Board Address	Sets the address of the board (each board in a group must have a unique address)	A	A	N/A	1 to 4	1
User Password	Shows and edits the user password	A	A	N/A	******	000000
Co.	Shows and edits the company name displayed on the first page	A	A	N/A	16 characters	
Max Trips/h	Shows the maximum recorded count of trips in one hour along with the time of the day when it happened	A	A	N/A	N/A[1]	
Adjust Time	Sets the time of the day	A	A	N/A	N/A	
Adjust Date	Sets the date	A	A	N/A	N/A	
Adjust Day	Sets the day of the week	A	A	N/A	Mon to Sun	
Upload settings to DT	Upload the settings from MicroZed to DT	A	A	DT connected		
Dnload settings from DT	Download the settings from DT to MicroZed	NA[2]	A	DT connected		
Firmware Update	Upgrade the firmware on site	NA	A	Client P/W		
Load Factory Settings	Loads the settings of the factory	NA	A	N/A	N/A	
Exit Menu Temporarily	Exits the menu allowing reentry with no password for 10 minutes	A	A	N/A		

[1] N/A means not assigned
[2] NA means not accessible

5.3.1 MENU TRANSLATION INTO FRENCH AND ARABIC

ENGLISH	FRENCH	SWEDISH	ARABIC
V1.00.2	V1.00.2		1.00.2
Normal FLxx	Normal Etxx		عادي ط أ
View Faults (Fatal=--)	Voir Fautes (Fatal=--)		اظهار الأخطاء (حاسم=--)
Homing trip?	Parcours d'initialisat.	Uppstart	رحلة أولية
Simplex(1)Full Swinging	Simplex(1)Sel. Battante	Simplex(1)Ned Slagdör	مفرد(١) نزول باب عادي
Simulate calls	Simuler appels	Simulera Körning	محاكاة الطلبات
Inspection operation	Operation Revision	InspeKtions Körning	عملية فحص
Boards detected On Bus	Cartes detectees sur Bus	Kretskort det.Pâ Bus	لوحات موجودة على الخط
Enter Password	Entrer Le Code	Ange Lösenord	أدخل الرقم السري
Empty Fault Log	Vider Journal De Fautes	Radera gallog	امح لائحة الأخطاء
Light Time	Duree D'eclairage	Körbelysning tid	وقت الاضاءة
Floor Stopping Time	Duree Arret Etage	Stopptid	مدة وقوف على الطابق
Parking Door	Stationemt Porte	Partering Dörr	الوقفة: الباب
Door Nudging/Obs	Porte Coup/Coincee	Dörrfotocell Förd	الباب وكزة/عالق
Hydraulic Star Time	Duree Etoile Hydr.	Y/D Start tid	مدة نجمة هيدروليكي
VVVF Start Delay	Delai Depart VVVF	Fördr.start VVVF	تأخير الاقلاع VVVF
VVVF/Hyd Stop Delay	Delai Arret VVVF	Fördr.stop VVVF/Hyd	تأخير الوقوف VVVF
Gong Time	Duree Gong	GongSignal tid	مدة الزمور
Minimum Load	Charge Minimale	Minimum Last	الحمل الأدنى
Main Landing	Retour Et.Pr.	Entre plan	تأمين مدخل
PTC Detection	Detection PTC	PTC Kontroll	حساس PTC
Power On Homing	Initial. & EDL	Sp till återKör	رحلة أولية-تيار
Light Inverted	Eclair. Inverse	Utg för bel inv	اضائة معكوسة
Re-leveling	Corrig. Niveau	Efterinstäl.	تصحيح مستوى
EOS During Insp	EOS Et Revision	EOS vid insp.	أخر جولة + فحص
Cam close delay	Delai fermetu. serr	Förd av läsbana	تأخير اقفال
Cam engage time	Duree fermetu. serr	Tid lâsbana dragen	مدة اقفال
Contactor start del	Delai Depart Cont.	Kontaktor förd.Start	تأخير الإقلاع كنتكتور
2Side Door F.	2Portes later.	Två sidodörrar	بابان جانبيان
Auto door mapping	Carte de la Porte Auto.	Auto dörren mapping	خريطة الأبواب
Floor # x Door Side	Floor # x Door Side	Floor # x Door Side	Floor # x Door Side
CC Cancelation	Annulat. Appel	Korg Appel Anul	الغاء طلبات العربة
Amendment A3	Amendement A3	ändring	تعديل A3
Time Restrict.	Compteur Jours	Tidsbegränsad	تقييد الوقت
Elapsed Cnt Of Days	Jours Deroules	Räkna dagar son gått	عدد الأيام المنقضية
Preset Count Of Days	Nb. De Jours Desires	Reset av dagräknare	تحديد عدد الأيام
Max. Count Of Err.	Nbre Max. D'erreurs	Max antal fel	أقصى عدد الأغلاط
Car jammed delay	Delai cabine bloquee	Fördr.pga.överlast	العربة عالقة بعد مرور
Auto Door Operation	Operation porte auto.	Aut dörr styrning	عملية باب أوتوماتيك
Inspection speed	Vitesse de Revision	Inspektion shast ighet	السرعة خلال الفحص
Ramp to stop w Insp	Ramp avec revision	Stop ramp inspekt.	انحدار مع فحص
Basements	Sous-sols	Källarplan	عدد الأدوار السفلية
Door Type	Type De Porte	Dörrtyp	نوع الباب
Permanent Close	Ferm.Permanente	Alltid stängd	اغلاق دائم
Permanent Open	Ouvr. Permanente	Alltid Oppen	فتح دائم
RE-OPN i/p	Entree RE-OPN	Ing för återöppening	مدخل RE-OPN
Reset time on re-opn	Reset dure apres reopn	Tid efter återöpenning	محو عداد الوقوف على الطابق
Door Zone	Door Zone	Dörr zon	مستوى الباب
Pre-opening	Pre-ouverture	Tidig dörröppn	فتح مسبق
First Stop	Premier Arret	Första stopp	الوقفة الأولى
Collective	Collective	Kollektiv	تجميع
Carcall priority	Priorite pour cabine	Prioritet Korgdest	أفضلية للعربة
Extension Boards	Nbre D'extensions	Expansionskät	عدد لوحات مضافة
Mode	Mode	Mode	مصعد
Drive	Moteur	Igâng	المحرك
Intermediat Speed	Vitesse intermed.	Medelhastighet	سرعة متوسطة
Homing Speed	Vitesse initialisat.	Återkorn.hastighet	سرعة رحلة أولية
Spare1	Spare1	Extra utg1	اضافي١
Spare2	Spare2 (24V)	Extra utg2	اضافي٢ (24V)
Passenger Capacity	Nbre de personnes	Antal Passagerare	عدد الأشخاص

ENGLISH	FRENCH	SWEDISH	ARABIC
Display Type	Type d'afficheur	Typ av display	المؤشر
Total Trips	Nb. De Parcours	Antal starter	عداد الرحلات
Language	Langage	Språk	اللغة
Board Address	Adresse de la carte	Board adress	عنوان اللوحة
User Password	Code Utilisateur	Användarlösenord	رقم سري للفني
Co.	Co.	Kompany	شركة
Max Trips/h	Parcrs Max/h	Start/tim	أقصى رحلات / س
Adjust Time	Ajuster L'heure	Ställ/tid	ضبط الوقت
Adjust Date	Ajuster La Date	Ställ datum	ضبط التاريخ
Adjust Day	Ajuster Le Jour	Ställ dag	ضبط اليوم
Upload settings to DT	Enregistrer param.sur DT	Ladda inst.till DT	حفظ الضبط على DT
Dnload settings from DT	Telecharger param. du DT	Ladda inst. Frân DT	تنزيل الضبط من DT
Firmware Update	Firmware mise a jour?	Firmware Uppdatera?	تحديث البرمجة؟
Load Factory Settings	Configuration Initiale	Fabriksinstallning	اعادة قيم المصنع
Exit Menu Temporarily	Sortie temporaire Menu	Gâ ur meny tillfälligt	خروج مؤقت من الائحة
Exit Menu	Sortir Du Menu	Gu ur meny	خروج من الائحة

5.3.2 ON-BOARD CALL REGISTRATION FUNCTION

The operator can give calls using the page “Simulate calls” to test the lift. Lift has to be in normal operation with no faults. When SELECT is pressed, the display will show FL#. Use the PREV and NEXT push buttons to change the floor selection. Once the desired floor is displayed, press SELECT push button, the display will show the calls available on the floor selected. Push the appropriate button, the call for this floor is registered and the appropriate led will light on the board as well as in the car or hall. The lift will proceed to serve this call. If no buttons are pressed within 5 seconds, the display will exit the call registration mode. The display will exit the floor selection mode if no buttons are pressed for 5 seconds.

5.3.3 ON-BOARD INSPECTION OPERATION

The display has to be on “Inspection operation” page. Lift has to be in inspection mode. When SELECT is pressed, the NEXT and PREV push buttons acts as INSP_DN and INSP_UP inputs respectively. To exit the inspection direction mode, press SELECT push button. The board will also exit the inspection direction mode if no buttons are pressed within 10 seconds. The INSP_DN and INSP_UP inputs have higher priority and will override the NEXT and PREV push buttons.

5.3.4 CARCALL CANCELLATION

When “CC Cancellation” is enabled in the menu, a registered carcall can be canceled by double clicking it.

5.3.5 DOOR MAPPING FOR TWO DOOR ENTRANCE

This feature is used when we have two doors in the same cabin: Door A and Door B. When “2Side Door F.” is enabled in the menu, “Auto door mapping” appears and gives access to the sub menu “Floor # x Door Side”. For each floor, it is possible to select door A or B or Both. “A” side is controlled by the OPEN and CLOSE outputs. “B” side is controlled by two spare outputs.

6 DESKTOP FIRMWARE UPGRADE

6.1 INSTALLING THE MZ3.3A FIRMWARE UPGRADE SOFTWARE

In order to upgrade firmware on site, a CD will be provided by S.&A.S.Ltd & the below steps shall be followed:

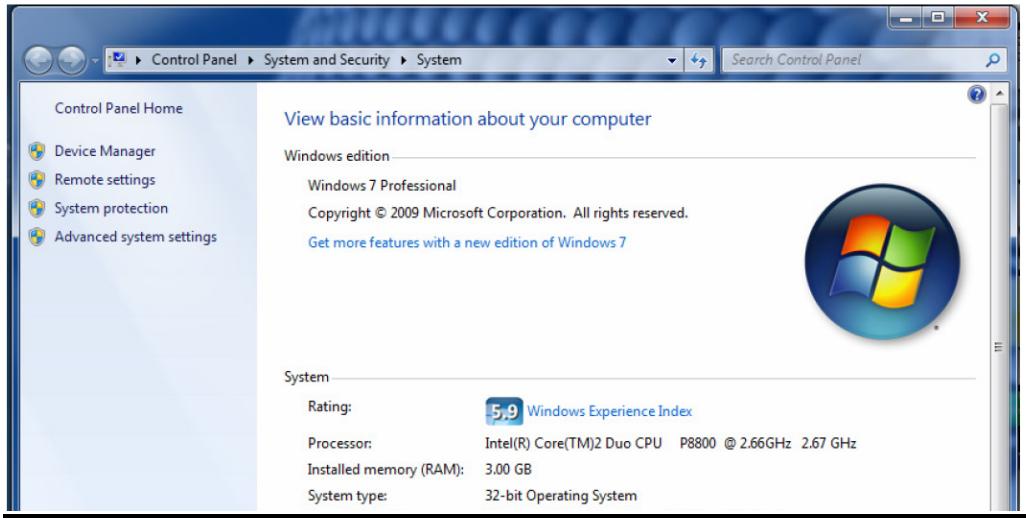
1. Run file “SAS_Patch.exe” located in “MZ33A_PTool\SAS_PTool” folder.
2. Go to the folder “SAS_PTool Setup” located in “MZ33A_PTool\SAS_PTool” folder and double click on “setup.exe”, then follow the instructions to setup the software “SAS_PTool.exe”.
3. “SAS_PTool” will appear in the programs list. Send it to Desktop as shortcut.

6.2 INSTALLING THE MZ3.3A USB DRIVER

1. Power off the MizroZed v3.3A board.
2. Make sure that USB cable is connected to PC. Plug in the USB cable and Power on the MicroZed v3.3A.
3. Follow the steps below to setup the driver according to the version of windows on PC.

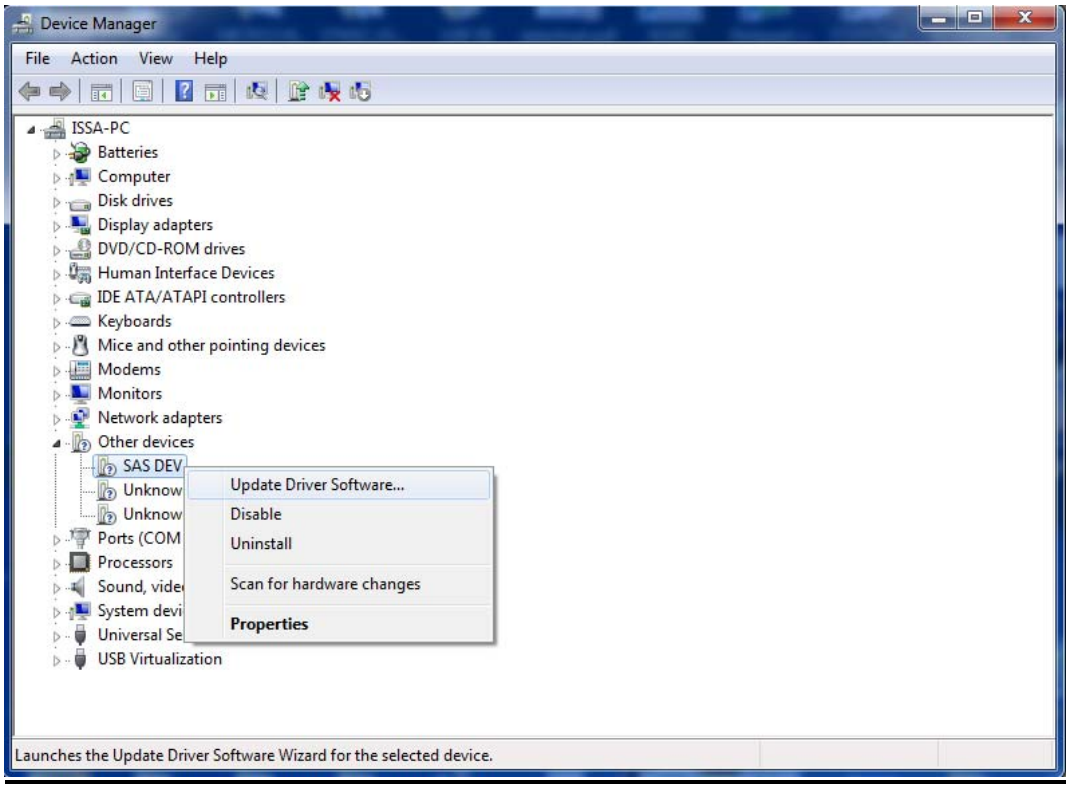
6.2.1 DRIVER SETUP FOR WINDOWS VISTA/WIN7[1]

The first MZ3.3A plugged into the PC USB port may not launch an automatic start. In this case, right-click my computer and choose properties. The following window appears. On the left side of the window, click on Device Manager.

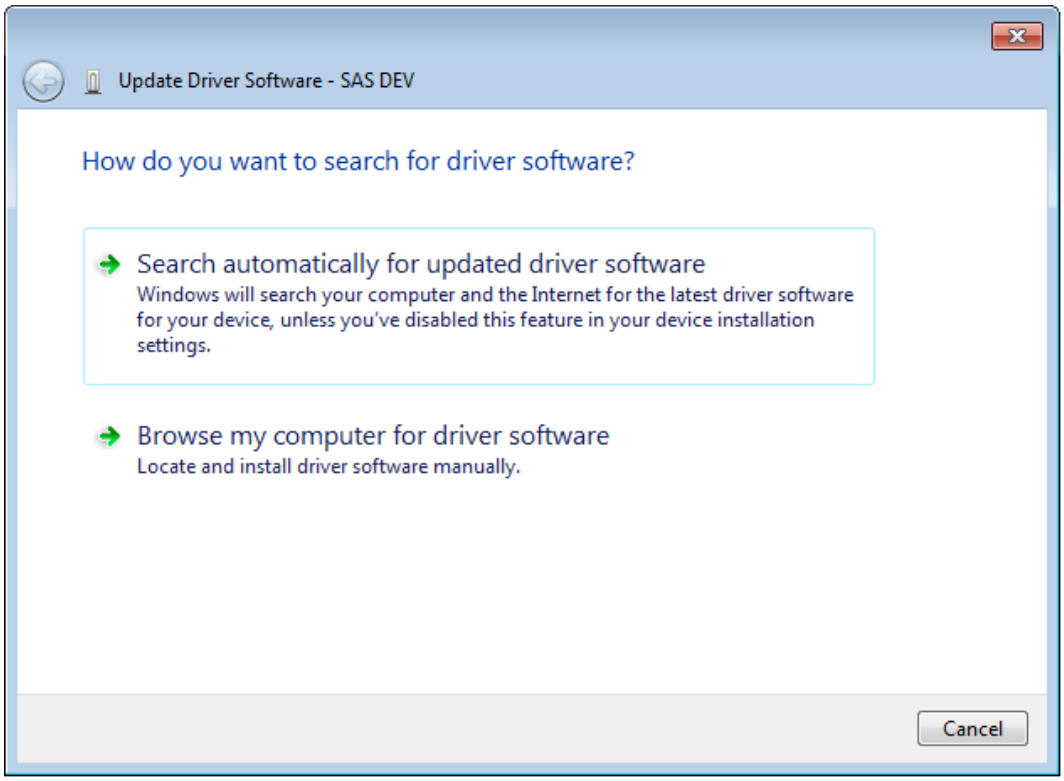

Control Panel ▸ System and Security ▸ System
Search Control Panel
Control Panel Home
Device Manager
Remote settings
System protection
Advanced system settings
View basic information about your computer
Windows edition
Windows 7 Professional
Copyright © 2009 Microsoft Corporation. All rights reserved.
Get more features with a new edition of Windows 7
System
Rating:
5.9 Windows Experience Index
Processor: Intel(R) Core(TM)2 Duo CPU P8800 @ 2.66GHz 2.67 GHz
Installed memory (RAM): 3.00 GB
System type: 32-bit Operating System

[1] This will be implemented only one time when the first Microzed v3.3A is connected to PC through USB.

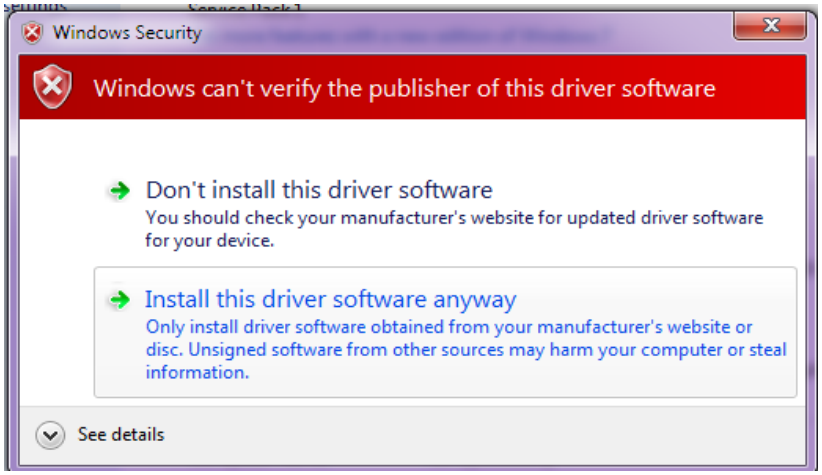
The MZ3.3A device will appear in Other Devices, right-click it and choose Update Driver Software.



Select “Search automatically for updates driver software”.


Update Driver Software - SAS DEV
How do you want to search for driver software?
Search automatically for updated driver software
Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings.
Browse my computer for driver software
Locate and install driver software manually.
Cancel

Select Install this driver software anyway.


Windows Security
Windows can't verify the publisher of this driver software
Don't install this driver software
You should check your manufacturer's website for updated driver software for your device.
Install this driver software anyway
Only install driver software obtained from your manufacturer's website or disc. Unsigned software from other sources may harm your computer or steal information.
See details

The Driver SETUP procedure will be done only once For Windows vista/Win7.
So, the driver of any new MZ3.3A connected to the PC USB port will be installed automatically.

6.2.2 DRIVER SETUP FOR WINDOWS XP

Each time a new MZ3.3A is plugged into the PC USB port, a “Found New Hardware Wizard” window appears.
Select “Install the software automatically (Recommended)” and click next.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
Communications Port MS
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

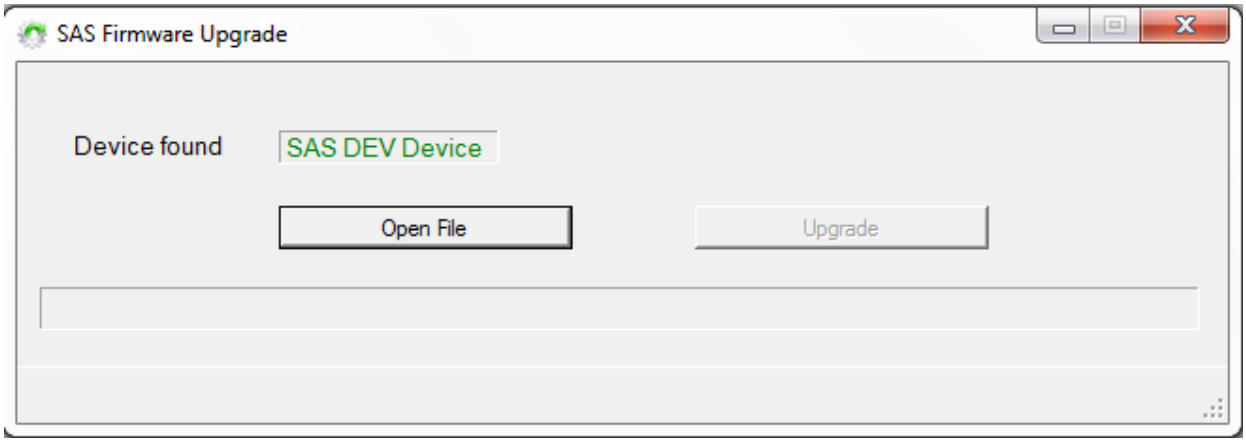
Select “Continue Anyway”.

Hardware Installation
The software you are installing for this hardware:
Communications Port MS
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

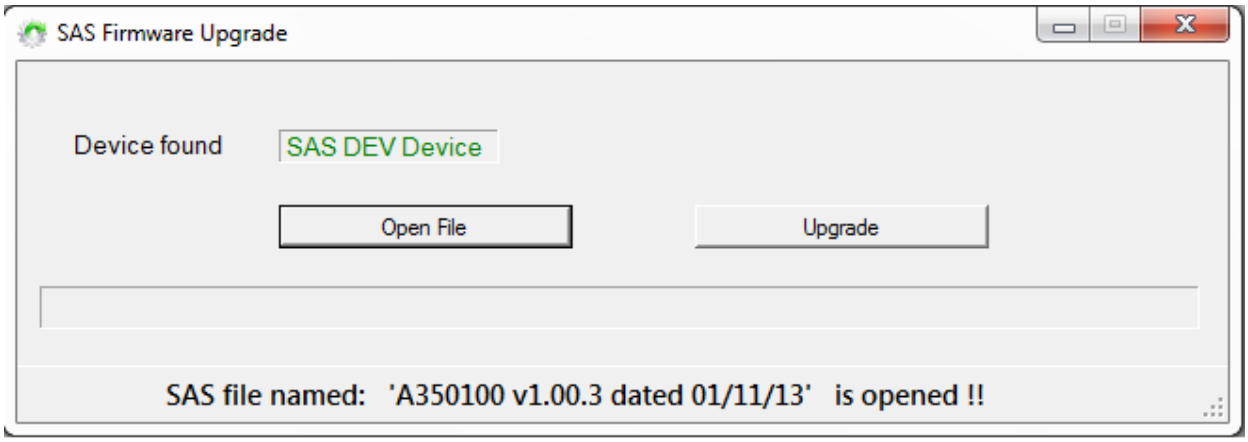
The driver of the new MZ3.3A connected to the PC USB port will be installed automatically.

6.3 FIRMWARE UPGRADE PROCESS

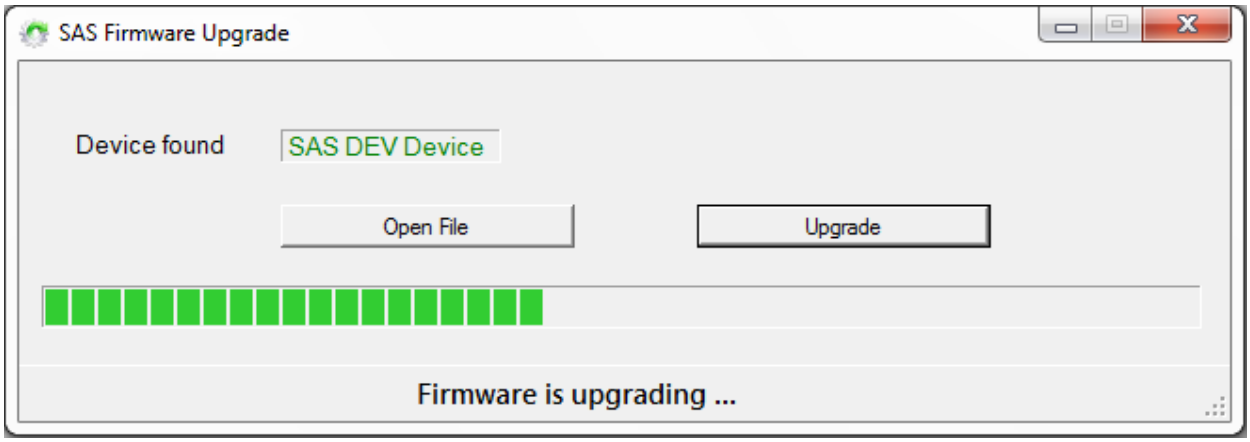
Power off the MizroZed v3.3A board.
Make sure that USB cable is connected to PC. Plug in the USB cable and Power on the MicroZed v3.3A.
Run “SAS_PTool” application.
The following window will appear prompting the user that the Microzed v3.3A board is detected on the USB port:



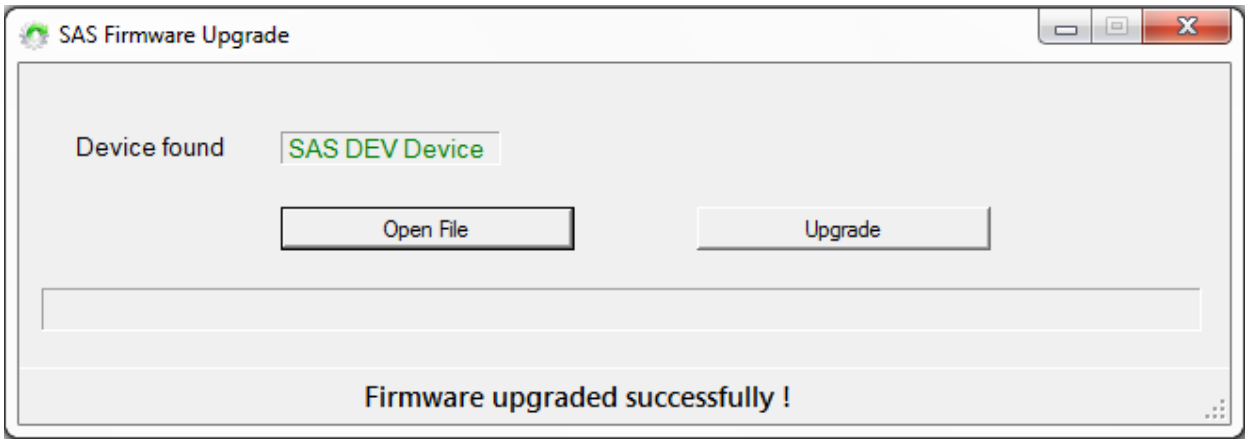
Click Open to choose the *.sas file that will be used to upgrade the firmware.
A Footnote will appear showing the file name, the software version and its date:



Click upgrade. The upgrade progress is shown as below:



Once the upgrade is complete, the footnote “Firmware upgraded successfully” will appear:



Disconnect the USB cable from Microzed v3.3A
The user can now process with normal operation of the lift.

7 GOOGLE STORE FIRMWARE UPGRADE

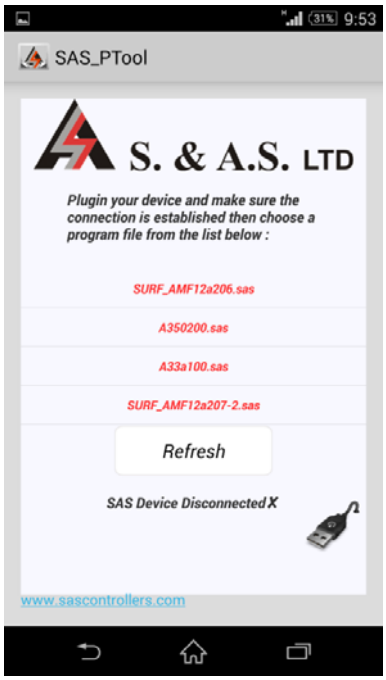
7.1 INSTALLING THE SASPTOOL FIRMWARE APPLICATION ON THE MOBILE

In order to upgrade firmware from a mobile, follow the below steps:

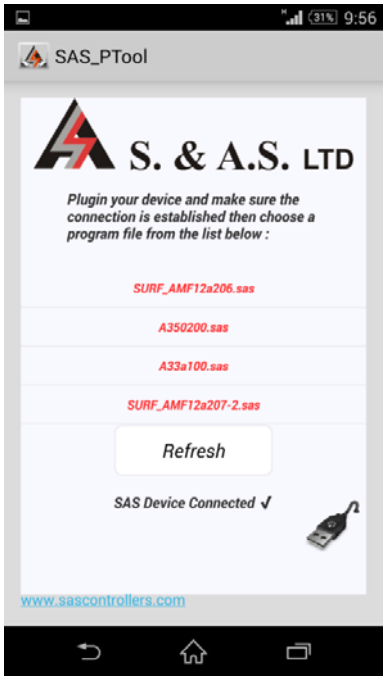
1. Search for the application “SASPTool” on google store and install it, or follow the link below: https://play.google.com/store/search?q=SASPTool.

7.2 FIRMWARE UPGRADE PROCESS

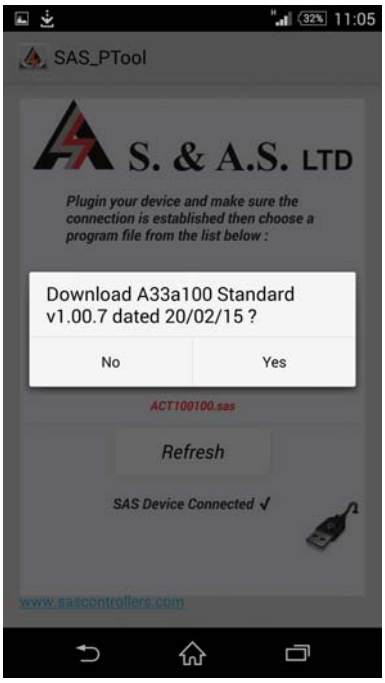
Run “SAS_PTool” application from the mobile.
The below window appears showing all *.sas files already saved.



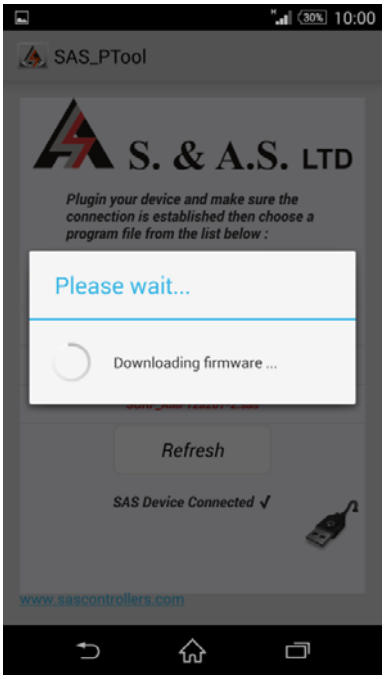
Power off the MizroZed v3.3A board.
Use a USB cable to connect board to the mobile.
Turn Microzed v3.3A on.
The following window will appear showing that a SAS Device is now connected:



Click on the sas file that you need to download.
A Popup window will appear showing the file name, its description and its date:



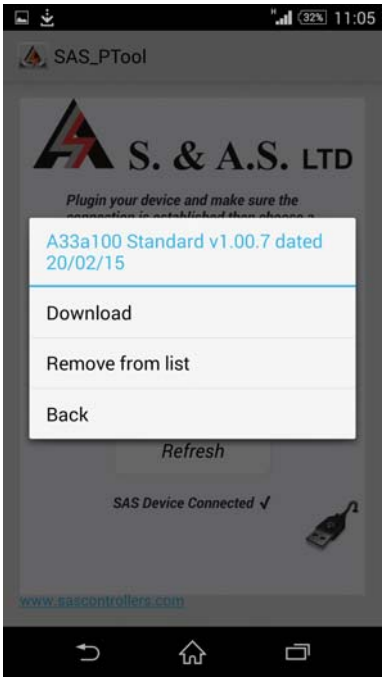
Click Yes. The downloading starts:


10:00
SAS_PTool
S. & A.S. LTD
Plugin your device and make sure the connection is established then choose a program file from the list below :
Please wait...
Downloading firmware ...
Refresh
SAS Device Connected √
www.sascontrollers.com

Once the downloading is complete, the message “Firmware Downloaded successfully” will appear:

Disconnect the USB cable.
The user can now process with normal operation of the lift.

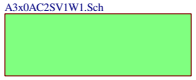
If you desire to delete any sas file from the mobile list, press on the filename until a Popup window appears showing you multiple choices:



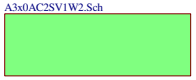
8 APPENDIX A

This appendix contains all wiring diagrams relevant to assembling the board in a panel.

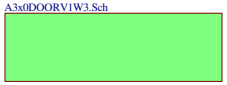
AC 2 SPEED - SUPPLY & OUTPUTS
A3x0AC2SV1W1.Sch



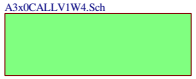
AC 2SPEED - INPUTS
A3x0AC2SV1W2.Sch



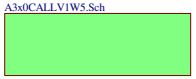
AC 2SPEED - DOOR INFO
A3x0DOORV1W3.Sch



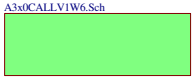
CALLS W/O EXTENSION & LANDING CALLS FOR DUPEX
A3x0CALLV1W4.Sch



CALLS WITH 1 EXTENSION
A3x0CALLV1W5.Sch



CALLS WITH 2 OR 3 EXTENSIONS
A3x0CALLV1W6.Sch



MICROZED AC2SPEED WIRINGS

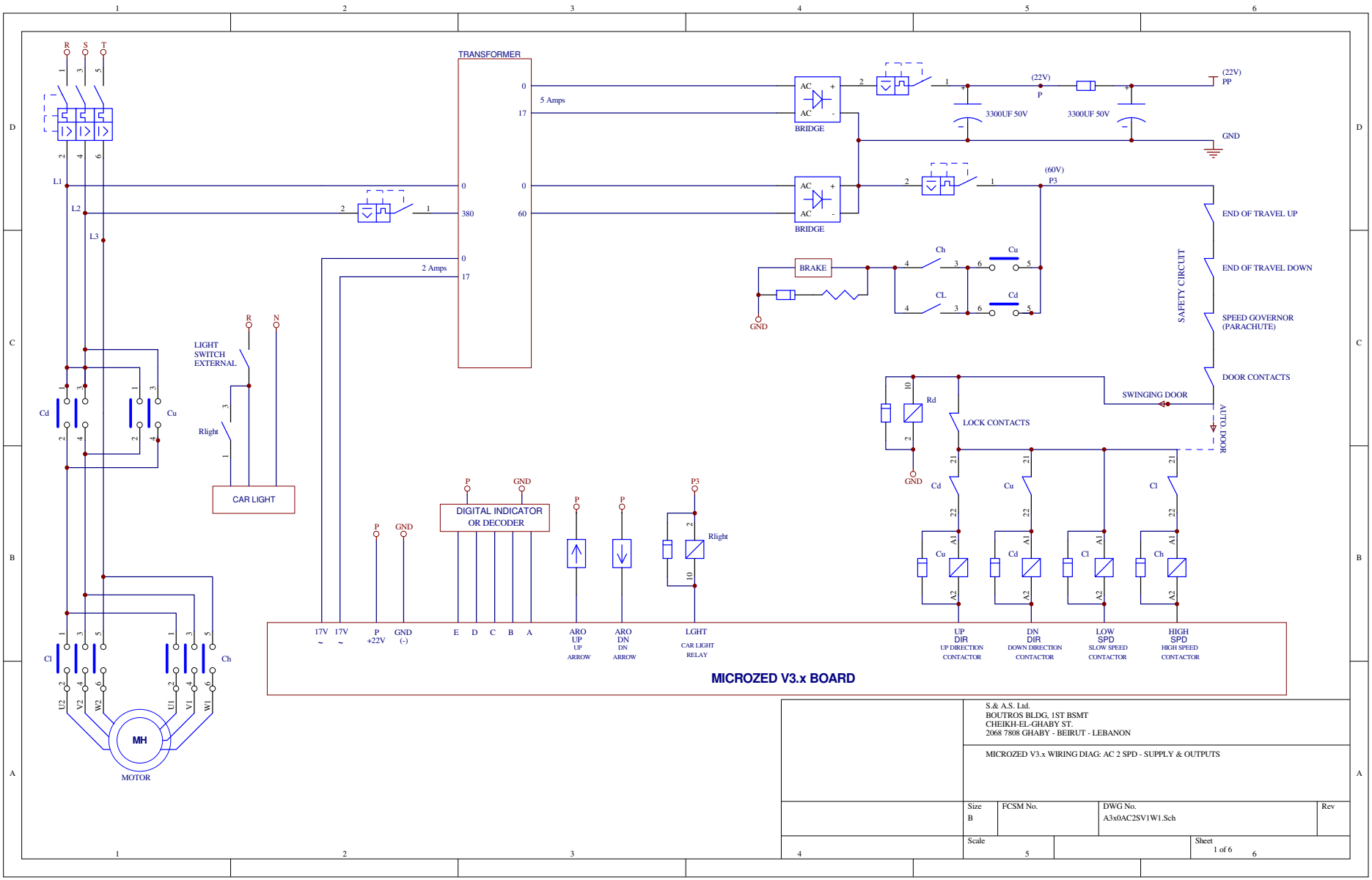
S.& A.S. Ltd.
BOUTROS BLDG, 1ST BSMT
CHEIKH-EL-GHABY ST.
2068 7808 GHABY - BEIRUT - LEBANON

MICROZED V3.x WIRING DIAGRAMS' SUMMARY -AC2SPEED

\\ZIADXP\Protel Projects\Wiring-Diagrams\MICROZED

Size	FCSM No.	DWG No.	Rev
B		A3x0AC2SV1WIR_DIAG.Sch	1

Scale	Sheet
	1 of 1



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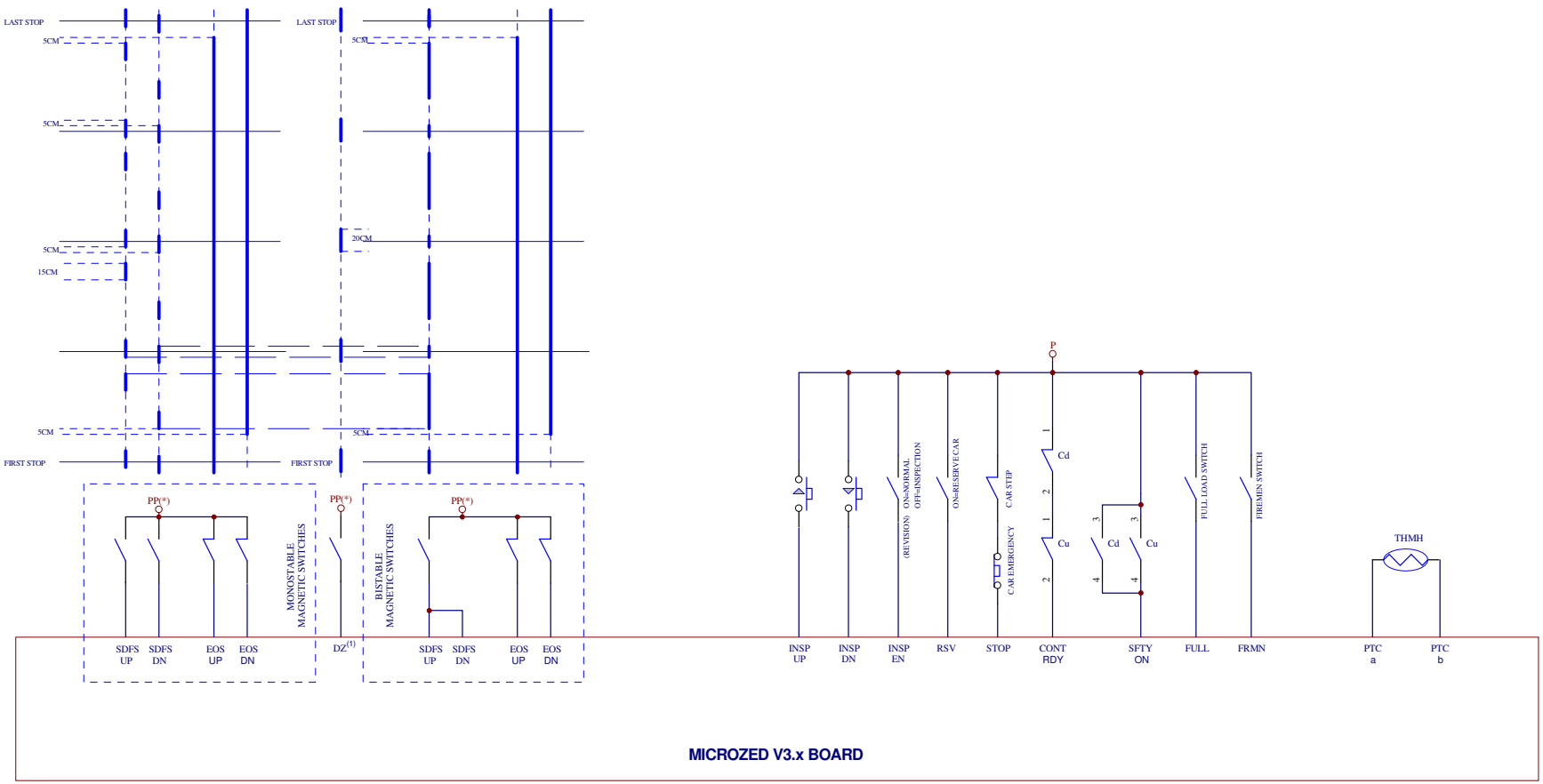
MICROZED V3.x WIRING DIAG: AC 2 SPD - SUPPLY & OUTPUTS

Size	FCSM No.	DWG No.	Rev
B		A3x0AC2SV1W1.Sch	

Scale	Sheet
	1 of 6



Note:

1- DZ is recommended for Automatic door.

(*) "PP" ONLY FOR MAGNETIC SWITCHES.

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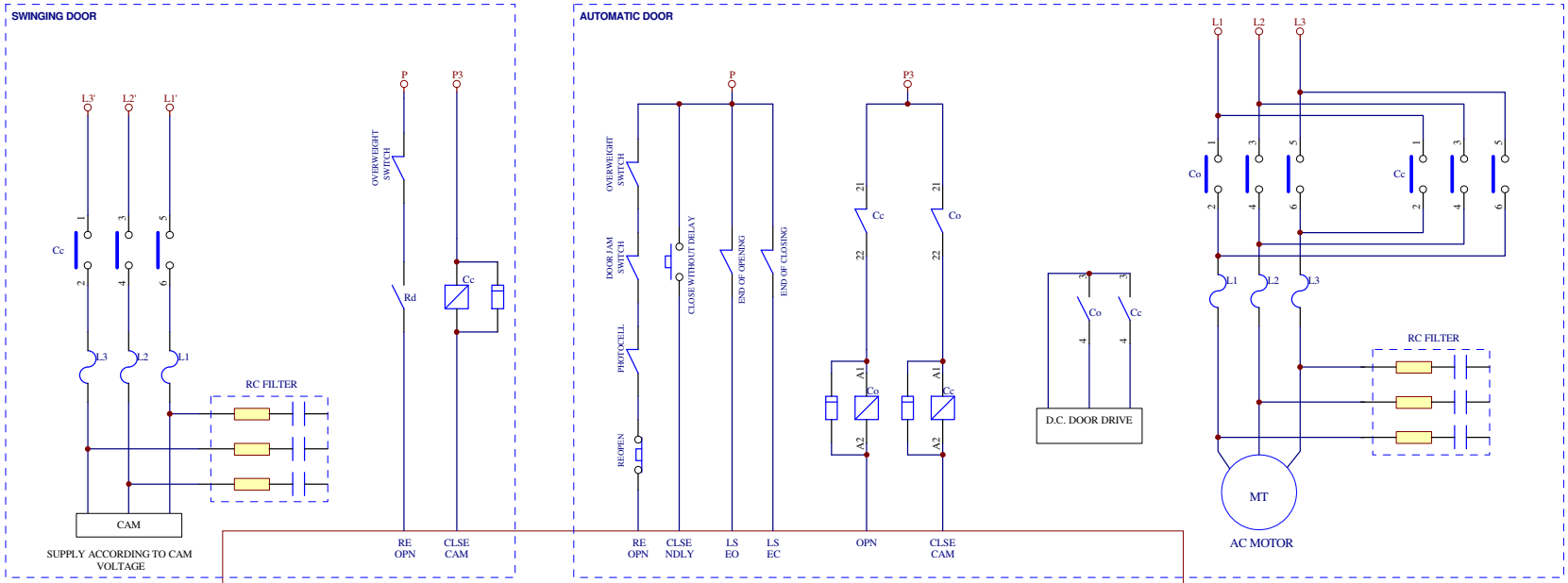
MICROZED V3.x WIRING DIAG: AC 2SPD - INPUTS

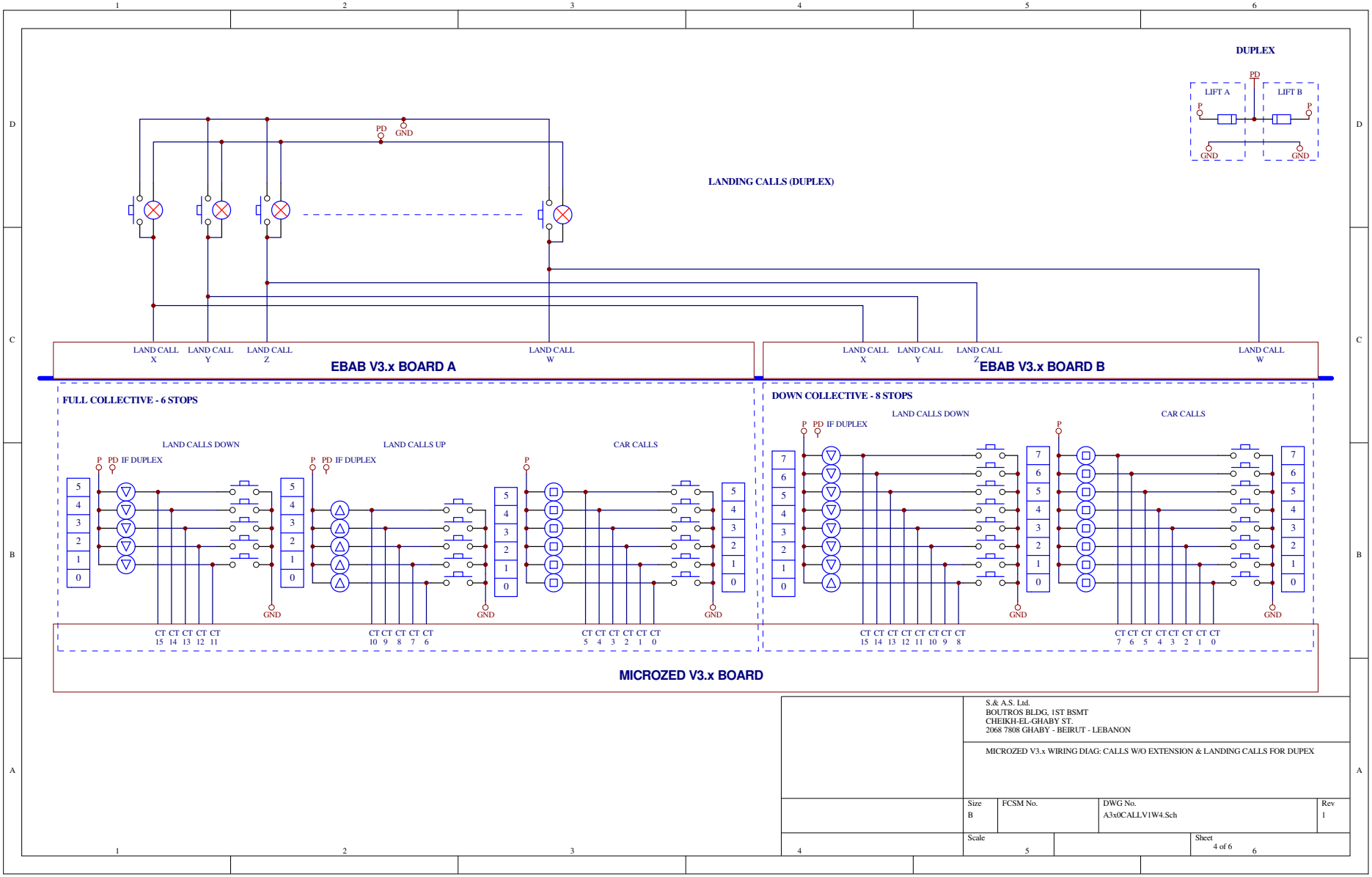
Size	FCSM No.	DWG No.	Rev
B		A3x0AC2SV1W2.Sch	1

Scale

Sheet 2 of 6



	S.& A.S. Ltd. BOUTROS BLDG, 1ST BSMT CHEIKH-EL-GHABY ST. 2068 7808 GHABY - BEIRUT - LEBANON			
	MICROZED V3.x WIRING DIAG: DOOR INFO			
	Size B	FCSM No.	DWG No. A3x0DOORV1W3.Sch	Rev 1
	Scale			Sheet 3 of 6



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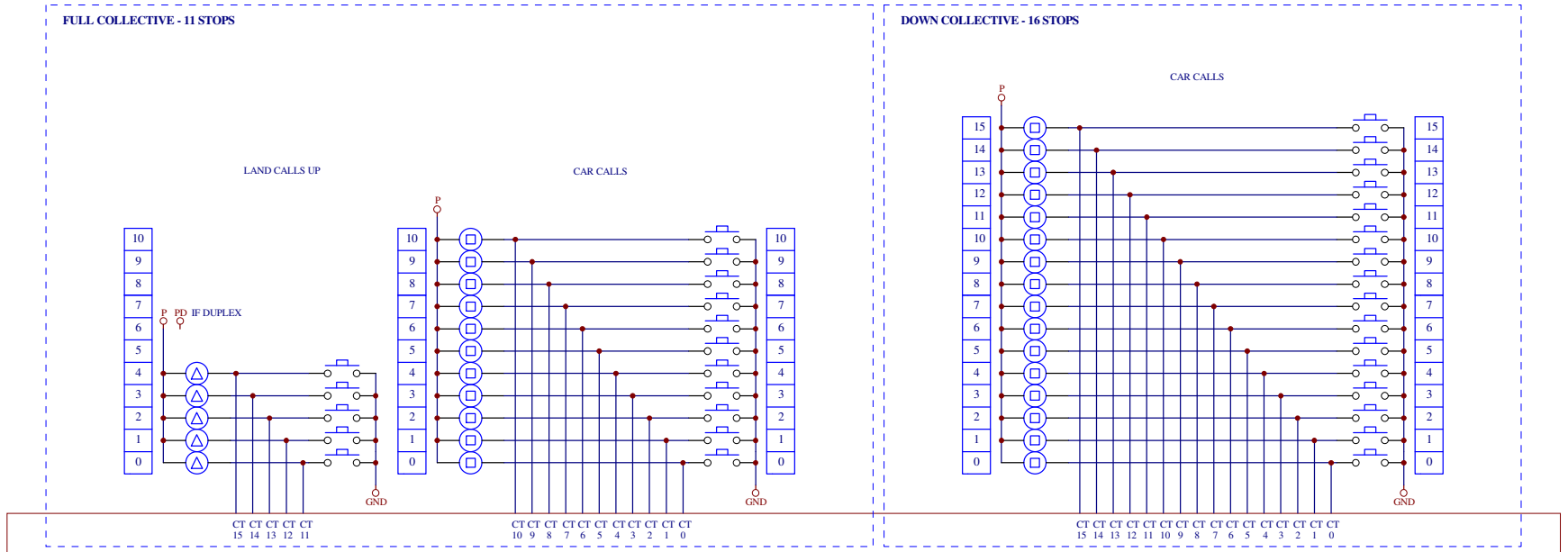
MICROZED V3.x WIRING DIAG: CALLS W/O EXTENSION & LANDING CALLS FOR DUPEX

Size	FCSM No.	DWG No.	Rev
B		A3x0CALLV1W4.Sch	1

Scale	Sheet
	4 of 6


FULL COLLECTIVE - 11 STOPS
LAND CALLS UP
CAR CALLS
P
PD
IF DUPLEX
GND
CT 15 CT 14 CT 13 CT 12 CT 11
CT 10 CT 9 CT 8 CT 7 CT 6 CT 5 CT 4 CT 3 CT 2 CT 1 CT 0
DOWN COLLECTIVE - 16 STOPS
CAR CALLS
CT 15 CT 14 CT 13 CT 12 CT 11 CT 10 CT 9 CT 8 CT 7 CT 6 CT 5 CT 4 CT 3 CT 2 CT 1 CT 0
MICROZED V3.x BOARD

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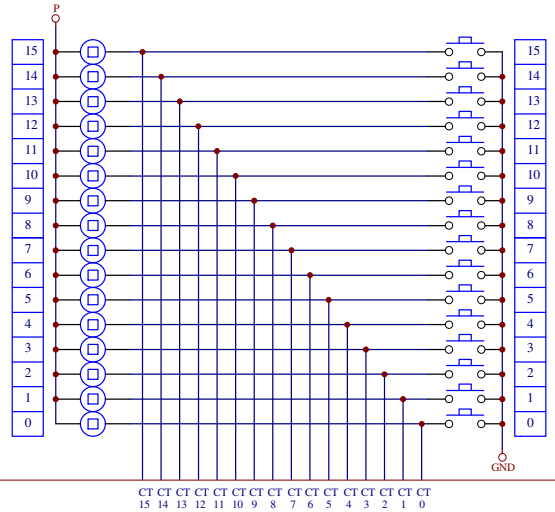
MICROZED V3.x WIRING DIAG: CALLS WITH 1 EXTENSION

Size	FCSM No.	DWG No.	Rev
B		A3x0CALLV1W5.Sch	1

Scale	Sheet
	5 of 6

DOWN COLLECTIVE - 16 STOPS

CAR CALLS



MICROZED V3.x BOARD

S.& A.S. Ltd.
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CHEIKH-EL-GHABY ST.
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MICROZED V3.x WIRING DIAG: CALLS WITH 2 OR 3 EXTENSIONS

Size	FCSM No.	DWG No.	Rev
B		A3x0CALLV1W6.Sch	1

Scale

Sheet 6 of 6

MICROZED+VVVF+RESCUE WIRING

DC AUTOMATIC DOOR

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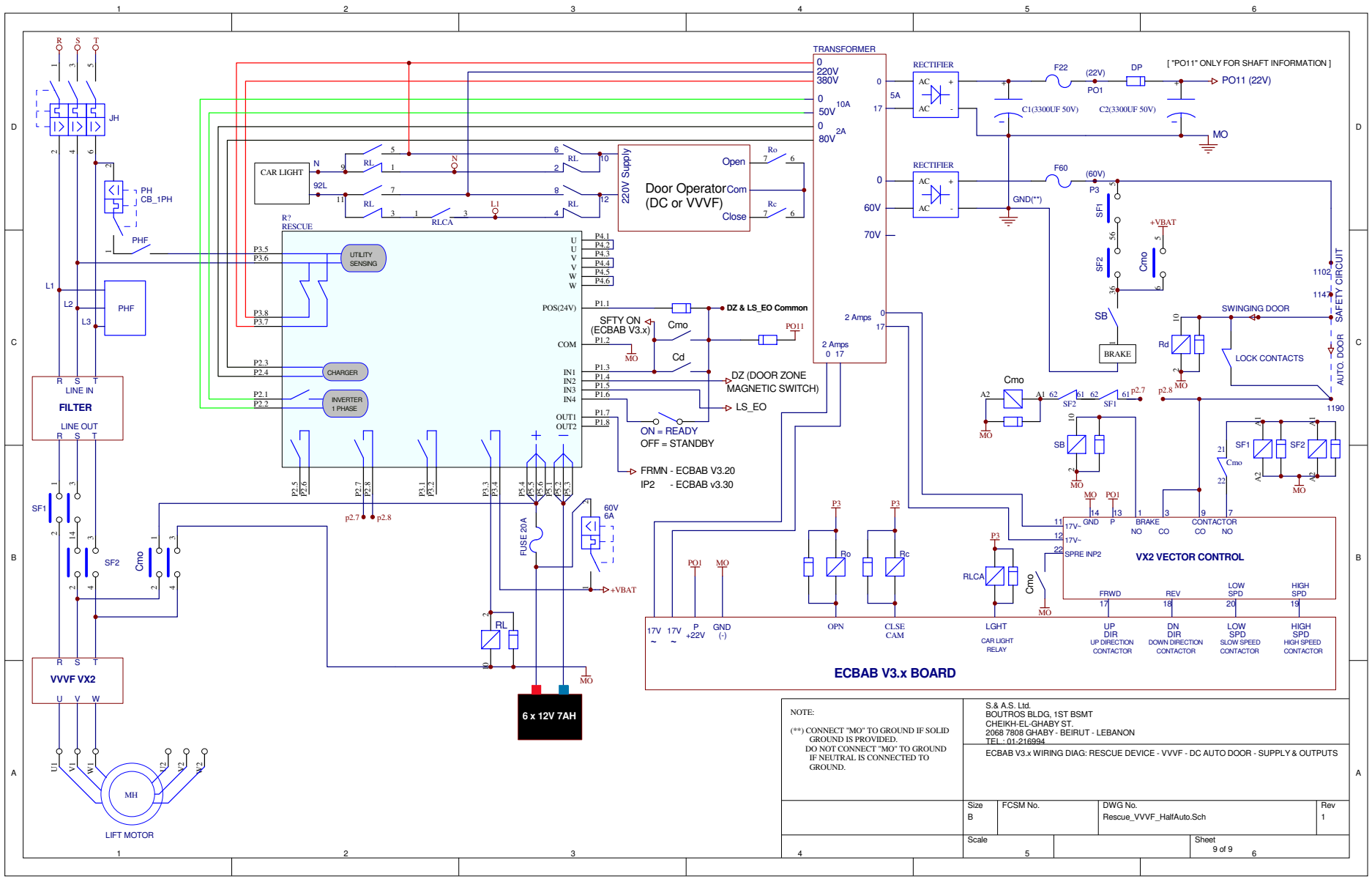
TEL : 01-216994

\\ZIADXP\Protel Projects\Wiring-Diagrams\MICROZED

Size	FCSM No.	DWG No.	Rev
B			

Scale		Sheet
		1 of 1



NOTE:

(**) CONNECT "MO" TO GROUND IF SOLID GROUND IS PROVIDED.
DO NOT CONNECT "MO" TO GROUND IF NEUTRAL IS CONNECTED TO GROUND.

S.& A.S. Ltd.
BOUTROS BLDG, 1ST BSMT
CHEIKH-EL-GHABY ST.
2068 7808 GHABY - BEIRUT - LEBANON
TEL : 01-216994

ECBAB V3.x WIRING DIAG: RESCUE DEVICE - VVVF - DC AUTO DOOR - SUPPLY & OUTPUTS

Size	FCSM No.	DWG No.	Rev
B		Rescue_VVVF_HalfAuto.Sch	1

Scale	Sheet
	9 of 9

MICROZED+VVVF+RESCUE WIRING

3 PHASE AUTOMATIC DOOR

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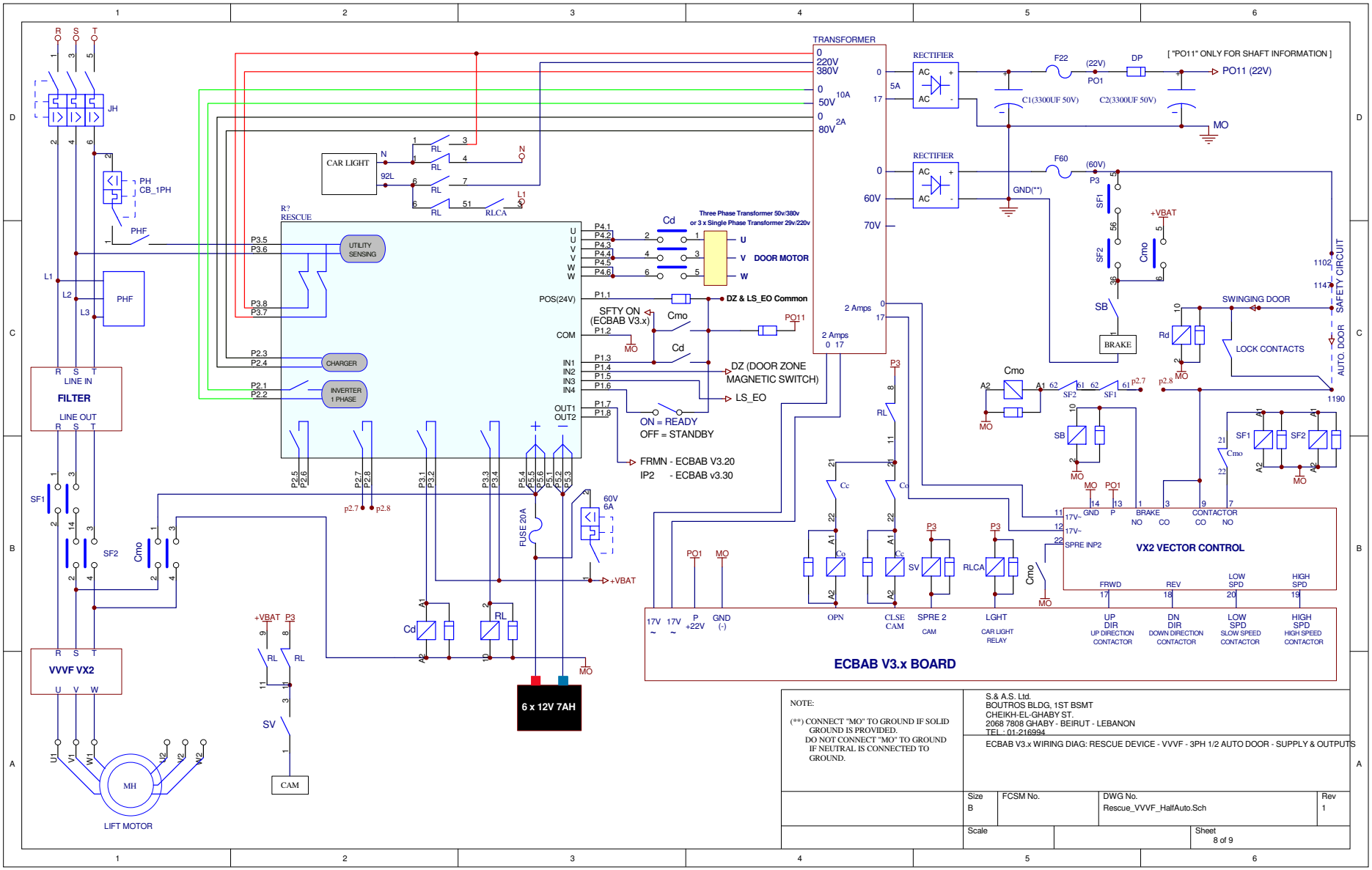
TEL : 01-216994

\\ZIADXP\Protel Projects\Wiring-Diagrams\MICROZED

Size	FCSM No.	DWG No.	Rev
B			

Scale		Sheet
		1 of 1



NOTE:

(**) CONNECT "MO" TO GROUND IF SOLID GROUND IS PROVIDED.
DO NOT CONNECT "MO" TO GROUND IF NEUTRAL IS CONNECTED TO GROUND.

S.& A.S. Ltd.
BOUTROS BLDG, 1ST BSMT
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TEL : 01-216994

ECBAB V3.x WIRING DIAG: RESCUE DEVICE - VVVF - 3PH 1/2 AUTO DOOR - SUPPLY & OUTPUTS

Size	FCSM No.	DWG No.	Rev
B		Rescue_VVVF_HalfAuto.Sch	1

Scale	Sheet
	8 of 9